Model 1421

Distribution Amplifier

Installation and Operating Instructions

The 1421 Distribution Amplifier provides four independent, wide bandwidth outputs from one video input. The unit is color compatible and also includes a video presence circuit to visually indicate proper system operation.

Part number 8000-0852-01 B0

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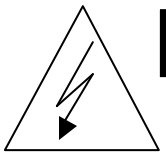
The installation of this product should by made by qualified service personnel and should conform to all local codes.



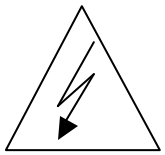
CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: To reduce the risk of electric shock, do not remove covers (or back).

No user-serviceable parts inside.

Refer servicing to qualified service personnel.



The lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING
To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

UNPACKING AND INSPECTION
Unpack carefully. This is an electronic product and should be handled as such. Compare the items received with the packing list with your order.

Be sure to save:
1. The shipping cartons and insert pieces. They are the safest material in which to make future shipments of the product.
2. The IMPORTANT SAFEGUARDS sheet.
3. These Installation and Operating Instructions.

Warning: This product generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this product in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

MAINTENANCE
User maintenance of this unit is limited to external cleaning and inspection. For specific recommendations, refer to the IMPORTANT SAFEGUARDS sheet packaged with this product.

INSTALLATION AND SERVICE
If you require information during installation of this product or if service seems necessary, contact the American Dynamics Video Products Division. You must obtain a Return Authorization Number and shipping instructions before returning any product for service.

Do not attempt to service this product yourself. Opening or removing covers may expose you to dangerous voltages or other hazards. Refer all servicing to qualified personnel.

QA301D

Table of Contents

PRODUCT DESCRIPTION **1**
FEATURES **1**
INSTALLATION **1**
CONNECTIONS **2**
OPERATION **2**

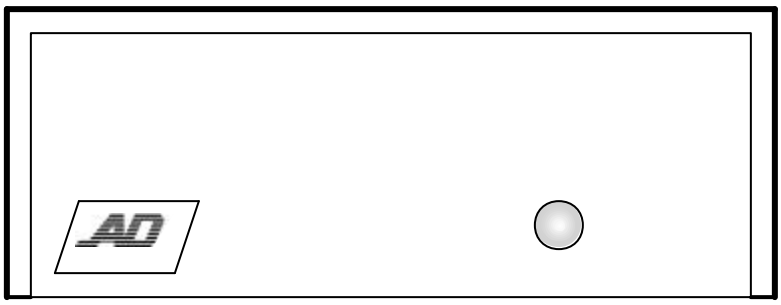


Figure 1 - 1421 Front Panel

PRODUCT DESCRIPTION

The 1421 Distribution Amplifier provides four independent, wide bandwidth outputs from one video input. The unit is color compatible and also includes a video presence circuit to visually indicate proper system operation.

FEATURES

❖ *FOUR VIDEO OUTPUTS*

Each output is driven by an independent isolated amplifier. Shorts, opens, or noise on one output have no effect on the other outputs. No manual adjustment is required.

❖ *VIDEO LOSS DETECTION*

The Power LED on the front panel indicates the presence or absence of an input video signal. An associated pull-down output can trigger a user-supplied alarm device.

INSTALLATION

Mounting

1421 Distribution Amplifiers are supplied as desk-top units. For rack mounting, 2117 Series rack-mount kits are available. 1421s are quarter-rack units. Up to four quarter-rack units such as a 1404-switcher, a 1470A Screen Splitter, or a 1461 Single Channel Motion Detector may be mounted in a single 19" by 1 ¾" rack. One or two quarter-rack units may be mounted with half-rack units, such as the 1440B Date/Time Generator.

IF YOU ENCOUNTER ANY PROBLEMS OPERATING THIS UNIT, OR NEED TECHNICAL ASSISTANCE:

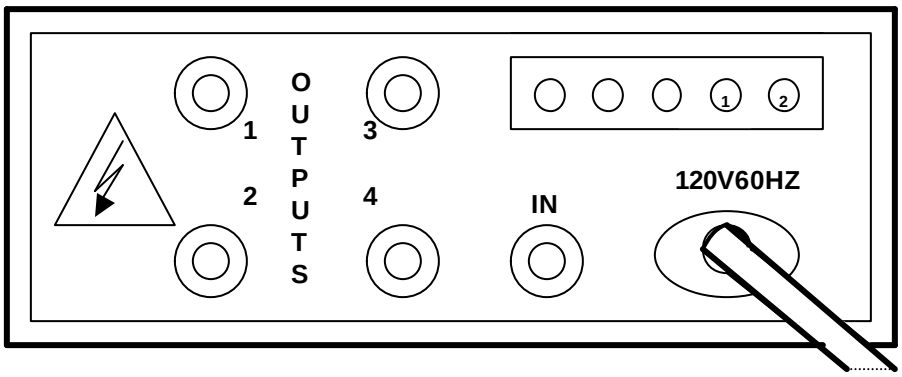


Figure 2 - 1421 Rear Panel

CONNECTIONS

Video Inputs

The BNC video input connector located on the back panel is terminated internally in 75 ohms. Therefore, if a video cable is looped through a monitor between the camera and the amplifier, that monitor's termination switch should be set to HI-Z. Otherwise, the camera output "sees" a double termination, which reduces its video signal level.

VIDEO OUTPUTS

The four BNC video outputs are designed to be terminated in a 75-ohm load. Therefore, if any of the video output cable are looped through monitors or other accessories, be sure their terminations are set to HI-Z. Only the last unit on the line should have its termination set to 75 ohms. All four outputs may be used simultaneously. Shorts or opens on any one output do not affect the other outputs. Unused outputs should be left disconnected and are not terminated.

VIDEO LOSS DETECTION OUTPUT

An open collector pull-down output is available on the rear panel to signal a loss of video to other equipment. When no video is present (LED red), the output transistor is on (pulled down). This output can sink up to 20 ma from external circuits or devices operating form a maximum of 24 V DC. Multiple 1421s may be connected in parallel so that a loss of video on any one unit signals an alert.

External Video Loss 5-Pin Connector
Pin 1 - Common
Pin 2 - Video Loss Output

Caution: Do not apply external voltages to this connector. Precautions should be taken, especially with multiple amplifiers, to prevent incorrect connections which may damage the amplifier.

Power Connection

1421 models operate from 120 VAC, 50/60 Hz. 1421/X models operate from 240 VAC, 50/60 Hz. The operating voltage is shown on the back panel. A 3-wire power cord and plug are attached.

OPERATION

There are no adjustments or controls on the 1421 Distribution Amplifier. The video signal connected to its input is reproduced on each of the four independent outputs.
The front panel LED power and video presence indicator provides the following information:
LED OFF: No input AC power
LED GREEN: Norman operation – AC power is on and a video input is present
LED RED: Video loss – AC power is on, but no video input is present
The LED video presence or loss indicator is not affected by shorts or opens on any of the four outputs. It indicates the presence of an input signal and the proper operation of the internal circuits of the 1421.

SPECIFICATIONS

Supply Voltage: 1421 – 120VAC, 50/60 Hz
1421X – 230 VAC, 50/60 Hz

Power: 3 watts

Mounting: Free standing or quarter-rack mount

Size: 1.88" H x 7.2"D x 4.3"W (48 x 183 x 109 mm)

Weight: 1 lb (0.5 Kg)

Designed and built by
AMERICAN DYNAMICS

Part number 8000-0852-01 B0